the isokinetic measurement of maximal torque for knee flexors and extensors, the maximal power and the heart rate on ergometric bicycle and questionnaires (Hospital Anxiety and Depression scale, Fatigue Severity Scale and Tampa scale for kinesiophobia). Activity and participation were assessed by three functional scales of the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) [2]: Physical functioning, Emotional status, Cognitive status, Social relationships, Capability of assuming functions and roles. The proportion of patients returning to work was also evaluated.

Results.– Eighteen patients completed all evaluations during one year. After the end of the follow-up, patients had a poor muscle performance and a low endurance on ergometric bicycle. They also had bilaterally a low pain threshold for the upper limb. Patients were not significantly depressed but had high level of fatigue and kinesiophobia. Social relationships and capability for function and roles improved gradually over the one-year period. However, 25% of the patients did not return to work.

Conclusion.– The patients treated for breast cancer present alterations of body function and activities after one year and deserve rehabilitation and arrangements both for work and everyday life, these findings being confirmed by other authors [1,3].

References

[1] Chalasani P, et al. Am J Med 2010;123:489–95.
[2] Fayers PM, et al. EORTC QLQ-C30 Scoring Manual, 3rd ed., Brussels: EORTC; 2001, ISBN: 2 9300 64 22 6.
[3] Stout NL, et al. Cancer 2012;15:2191–200.

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Outpatient rehabilitation care services for patient with brain tumor

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Introduction.– Rehabilitation and Neuro-oncology tend to develop joined follow-up for patients with brain or medullar tumor. Recent guidelines in France (still in progress) show evidence for such a trend [1]. Rehabilitation experience in disability management and expertise in rehabilitation care pathways and socio-medical follow-up can be useful for patients with neurological tumor (whatever the evolution of the process) or for those with long-term neuro-oncological sequellae in relation with their surgery or radio-chemiotherapy. We report here our innovative experience of outpatient multidisciplinary services in the Department of NeuroOncology. This activity was supported by the work group of NeuroOncologie Soins de Support (NOSS) et the Association pour la recherche sur les tumeurs cérébrales (ARTC).

Objectives.– The rehabilitation follow-up of outpatients takes place once a week in the department of Neuro-oncology with a double assessment made by a rehabilitation doctor and an occupational therapist. Patients are either addressed by the neurologist or by the nurse coordinator. The majority of patients suffer from a brain tumor (mainly glioblastoma). They either have incapacities directly linked to their tumor or sometimes in relation with side effects of radio-chemotherapy. Retrospective analyses of this rehabilitation follow-up show interest for:

– motor disability with possible indication of toxin botulinum injection when there is spasticity of the limb, fitting equipment (manual wheelchair, walking and home daily living equipment), indications for a physical therapy programme;
– cognitive and behavioral disability with communication aids, therapeutic information on neuropsychological disorders for the patient and his caregiver (hemineglegence, dysexecutive disorders, apathy), indications for a speech therapist programme;
– bladder and bowel disorders;
– home life project.

Discussion.– This rehabilitation follow-up points out the very importance of a quick response of the various therapists and care partners. Rehabilitation services should be easy and quick to access given the rapid evolution of many patients. Major objectives lie in helping the patient-caregiver life home project and maintaining a good quality of life. Preliminary assessments of this follow-up highlight the usefulness of integrating rehabilitation expertise in the global support programs for patients with tumor.

Reference

[1] Calmels. et al. Critères de prise en charge en médecine physique et de réadaptation et pathologies cancéreuses. Oncologie 2010;12:543–9.

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CO40-006-e

Physical activity in patients with unresectable pancreatic adenocarcinoma: A multicentric randomized controlled study (APACaP study)

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Keywords: Pancreatic cancer; Physical activity; Fatigue; Quality of life; Supportive care

Introduction.– Performing physical activity during a period of chemotherapy is a promising support to improve fatigue and quality of life (QoL) [1,2]. It has been shown efficient and feasible in various cancers. Pancreatic adenocarcinoma (PAC) is the second digestive cancer in incidence and one of the poorest prognostic tumors with 5-year survival rate $< 5\%$. Effects of physical activity in advanced PAC have not been explored. We aim to evaluate its potential role in these patients.

Patients and methods.– Randomized multicentric phase III interventional study to test the efficacy of an unsupervised home-based 16-week physical exercise program. Specificities of PAC for physical activity program implementation will be taken into account (physical activity partner instead of patients groups, nutritional management). Main inclusion criteria: histologically confirmed, unresectable PAC; scheduled for chemotherapy; WHO PS 0-2; age ≥ 18; physical activity partner. Two study arms: intervention group with exercise program (aerobic and resistance exercises) in addition to usual care; control group with usual care. Primary objective: effects on fatigue (MFI-20) and QoL (EORTC-QLQ-C30) at week 16, unified as co-primary endpoint. Secondary objectives: effects on pain, depression, nutritional status, insulin resistance, cancer-treatment tolerance, survival; adherence to the program, cost-effectiveness analysis. Number of patients required: 220.

Results.– PAC patients are strongly affected by fatigue, thus they are expected to benefit from a physical activity intervention. Moreover, exercise may be beneficial on tumor outcome, by reducing insulin resistance and insulin/IGF-1 secretions.

Discussion.– Such intervention may appear challenging because of multiple cancer-related symptoms (pain, fatigue, depression, denutrition) that can appear as barriers to physical activity. On the contrary, we hypothesize that an adapted physical exercise program may improve symptoms and QoL. If physical activity intervention proves to be feasible, effective and cost-effective, implementing standardized physical exercise programs in addition to chemotherapy in advanced PAC will be a logical next step. This project will be labellized by the

FFCD and GERCOR cooperative groups, and organized in partnership with the SFP-APA.

References

[1] Cramp F, et al. Cochrane Database Syst Rev 2012.
[2] Mishra. et al. Cochrane Data base Syst Rev 2012.

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Communications affichées

Version française

P115-f

Résection partielle de la scapula et des muscles péri-scapulaires suite à une fibromatose desmoïde péri-scapulaire. À propos d'un cas ; intérêt d'un programme de rééducation

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Mots clés : Fibromatose desmoïde péri-scapulaire ; Exérèse élargie ; Programme de rééducation

Introduction.– Les tumeurs desmoïdes sont des affections des tissus mous rares et graves par leur fort potentiel extensif local. Le développement aux dépens des muscles péri-scapulaires nécessite une exérèse élargie sacrifiant une bonne partie de ces muscles, ce qui entraîne des modifications biomécaniques importantes altérant à terme le pronostic fonctionnel de l'épaule.

Observation.– Mme P. ingénieur, âgée de 29 ans, droitière, sans antécédents pathologiques, a été opérée de son épaule droite suite à la découverte fortuite d'une tumeur desmoïde aux dépens des muscles péri-scapulaires. L'acte chirurgical a nécessité une exérèse partielle de la scapula avec exérèse musculaire sacrifiant l'infra-épineux, le petit rond, le grand rond, une partie du grand dorsal et le sub-scapulaire. La patiente avait initialement une impossibilité de faire les rotations externe et interne, une abduction avec anté et rétro-pulsions limitées. Les mobilités passives étaient conservées. À la fin du programme de rééducation, les mobilités actives obtenues sont satisfaisantes avec des scores fonctionnels significativement plus élevés (DASH et Constant).

Discussion.– Les fibromatoses desmoïdes sont des tumeurs rares et d'étiologie inconnue des tissus mous. Elles peuvent être très agressives localement avec un haut risque de récidive locale après chirurgie. La localisation au niveau des muscles péri-scapulaires est exceptionnelle mais a un retentissement fonctionnel important du fait du nombre de muscles sacrifiés.

L'objectif de notre programme de rééducation était essentiellement de compenser le déficit de mobilité active obtenu en postopératoire suite à cette résection élargie. Le renforcement a visé les groupes musculaires restants en fonction de leur effet synergique : le faisceau antérieur du deltoïde et du grand pectoral pour la rotation interne ; le faisceau postérieur du deltoïde pour la rotation externe ; le faisceau moyen du deltoïde et le supra-épineux pour l'abduction. Pour stabiliser la scapula dans les mouvements de sonnette, le travail a consisté à renforcer simultanément en co-contraction lors des différents mouvements le trapèze et le dentelé antérieur en arrière avec la longue portion du biceps et le petit pectoral en avant.

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Posters

English version

P115-e

Partial resection of the scapula and peri-scapular muscles after peri-scapular desmoid fibromatosis. About one case; interest of a rehabilitation program

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Keywords: Desmoïd fibromatosis; Expended excision; Rehabilitation program

Introduction.– Desmoïd tumors are soft tissues disorders that are rare and serious because of their high potential of local extension. The development at the expense of the peri-scapular muscles requires an expended excision sacrificing a big part of these muscles, which results in significant biomechanical changes impairing at the end the functional prognosis of the shoulder.

Observation.– Mrs P., engineer, 29-year-old, right-handed, without pathological medical history and who was operated on for the right shoulder after a fortuitous discovery of a desmoids tumor at the expense of the peri-scapular muscles. The surgery required a partial excision of the scapula with muscular excision sacrificing the infraspinatus, the teres minor, the teres major, a part of the latissimus dorsi and the subscapularis. The patient was initially unable to do the external and internal rotation with a limited abduction and pre and retro-pulses. Passive movements were kepted. At the end of the rehabilitation program, active movements obtained are satisfactory with functional score significantly higher. (DASH and Constant).

Discussion.– Desmoïd fibromatosis are tumors of soft tissues that are rare and of unknown etiology. They can be very aggressive locally with a high risk of local recurrence after surgery. The localization near the peri-scapular muscles is exceptional with an important functional impact because of the number of muscles sacrificed.

The aim of our rehabilitation program was mainly to compensate the lack of active mobility obtained postoperatively that follows this expanded resection. The strengthening targeted the muscular groups remaining in function of their synergistic effect: the anterior fasciculus of the deltoid and major pectoral for internal rotation; the posterior fasciculus of the deltoid for the external rotation; the medium fasciculus of the deltoid and the supraspinatus for the abduction. To stabilize the scapula in its movements, the work consisted of reinforce simultaneously in co-contraction during the different movements the trapezius and the anterior serratus at the back with the long head of the biceps and the small pectoral in front.

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